WaveMatrix

Flexible and easy to use virtual matrix

WaveMatrix is an enhanced digital replacement for analogue matrix systems commonly used in CCTV control rooms. It is a virtual matrix display application designed to work in conjunction with the Wavestore video recording and management software and allows operators, using either a mouse or a joystick, to control which camera's images are displayed on a monitor wall.

A major advantage that WaveMatrix offers compared to traditional analogue matrix is that it can display images captured by high resolution HD and megapixel cameras without having to downscale them to PAL or NTSC resolution. It also provides users with the option to display analogue and HD cameras alongside each other in a wide range of user configurable formats e.g. 3x2, 8x2, 5x4.

WaveMatrix architecture

WaveMatrix is based on the following three main components:

- WaveMatrix Control - a desktop application that is used to control the monitor wall, sending the images from any camera in the networked recording system to any screen in the monitor wall;
- WaveMatrix Display - a display controller that drives the monitors; each WaveMatrix Display device can drive up to four screens and is connected to a Wavestore server (or server group); multiple controllers can be configured to create any combination of screens in a video wall;
- WaveMatrix Config Interface - an easy to use administrative tool for configuration of the overall system.

WaveMatrix provides a flexible and scalable architecture, enabling it to be configured in an extensive range of security and surveillance applications where high definition images are required to be displayed in real time; such as airports, casinos, homeland security, ports, public events, retail, commercial, industrial, government and safe city projects.

Open Platform design

The Wavestore open platform video management software (VMS) design enables the creation of complete surveillance systems by integrating Access Control, Automatic Number Plate Recognition (ANPR), Biometric Facial Recognition, Building Management System (BMS), Command & Control, Electronic Point of Sales (EPOS), Heat Maps, Intelligent Video Analytics (IVA), People Counting, Perimeter Intrusion Detection (PIDs), PSIM, Retail Analytics, and Scanning systems, whilst providing a single platform where alarms are received and responded following customisable rules.

Furthermore, a key feature of Wavestore's ONVIF Profile S conformant Linux based VMS software is its ability to simultaneously record and manage images captured by combinations of analogue, IP, megapixel, multi-megapixel, HD, HD-SDI and 360 degree fisheye cameras. Up to 192 cameras can be connected to a single Wavestore video server and these can be a combination of up to 128 IP network and 64 analogue cameras. The client de-warping design enables the entire image from a 360 fisheye camera to be recorded using a single camera channel, since every custom view is uniquely created by each Wavestore client.

The innovative WaveMatrix enhances the Wavestore open platform design providing the capability to easily control and display video on any number of monitors, whilst delivering both live and archived video with high image quality.

Contact us today to discuss how your application can benefit from the powerful WaveMatrix implementation.